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PROCEEDINGS OF THE 14TH MEETING OF THE SENATE HELD IN THE HALL OF THE MAHARAJA'S COLLEGE, MYSORE, ON FRIDAY THE 19TH MARCH 1920 AT 1 P.M.

PRESENT.

Rajamantrapravina H. V. Nanjundayya, Esq., M.A., M.L., C.I.E.,
Vice-Chancellor and Chairman.

1. Mr. E. P. Metcalfe, B.SC.
2. ,, N. S. Subba Rao, M.A., Bar.-at-Law.
3. Sir Leslie C. Miller, Kt., C.B.E.
4. Rao Bahadur Mr. M. C. Rangiengar, B.A.
5. Rajakaryaprasakta Rao Bahadur Mr. M. Shama Rao, M.A.
6. ,, K. R. Seshachar, B.A., B.E.
7. ,, J. C. Rollo, M.A.
8. Rajasabhabhushana Dewan Bahadur Mr. C. Srikantesvara Aiyar, B.A., B.L.
9. Mr. F. L. Usher, B.SC.
10. ,, V. S. Sambasiva Iyer, B.SC.
11. ,, M. T. Narayana Iyengar, M.A.
12. ,, E. G. McAlpine, M.A.
13. Dr. Radhakumud Mookerji, M.A., PH.D.
14. Mr. A. R. Wadia, B.A., Bar.-at-Law.
15. ,, K. T. Shah, B.A., B.SC., Bar.-at-Law.
16. ,, S. Radhakrishnan, M.A., L.T.
17. Dr. H. B. Mylvaganam, F.R.C.S.
18. Mr. R. Ranga Rao, B.A., B.L.
19. The Rev. W. H. Thorp, B.A.
20. Mr. S. R. Balakrishna Rao, B.A., LL.B.
21. ,, M. Ramachandra Rao, B.A., B.L.
22. ,, P. G. D'Souza, B.A., B.L.
23. Sri K. D. Rukminiamma, B.A.
24. Mr. B. M. Srikantia, M.A., B.L.
25. ,, B. Venkatanaranappa, M.A.
26. Rajakaryapravina Rao Bahadur Mr. T. V. Arumugam Mudaliar, M.B., C.M.
27. Mr. C. S. Doraswamy Iyer, B.A., B.L.
28. ,, K. Chandy, B.A.
29. ,, V. Rangaswamy Iyengar, A.C.E., B.C.E.
30. ,, S. G. Forbes, B.SC., E. & M.E., MEM., A.I.E.E.
31. ,, C. S. Balasundaram Iyer, B.A.
32. ,, K. Matthan, B.A.
33. Munir-ul-talim Mr. H. J. Bhabha, M.A.
34. Mr. M. Hiriyanna, M.A., L.T.
35. Praktanavimarsa Vichakshana Rao Bahadur Mr. R. Narasimhachar, M.A.
36. Mr. M. Venkatakrishnayya.
37. ,, S. Venkatesiah, B.A., B.L.
38. Dr. S. Paul Chinnappa, M.A., PH.D.
39. Rajasabhabhushana Mr. Karpur Shrinivasarav, B.SC., L.C.E.
40. Dr. M. Srinivasa Rao, M.A., M.D., B.SC., D.P.H., F.C.S.
41. Mr. V. Subrahmanya Iyer, B.A., (*Secretary*).

ABSENT.

1. Mr. Thos. Denham, M.A.
2. ,, C. R. Reddy, M.A.
3. Dr. Leslie C. Coleman, M.A. PH.D.
4. Mr. F. R. Sell, M.A.
5. ,, A. B. Mackintosh, M.A.
6. The Rev. A. R. Fuller, B.A.
7. Dr. W. F. Smeeth, M.A., D.SC.
8. Mr. B. Venkatesachar, M.A.
9. ,, B. Hanumantha Rau, B.A., I.S.O.
10. Miss M. L. Butler, B.A.
11. Mr. M. G. Srinivasa Rao, M.A.
12. Mr. P. Sampath Iyengar, M.A.
13. ,, R. H. Campbell, C.I.E.
14. ,, S. Cadambi, B.A., L.C.E.
15. ,, Mirza M. Ismail, B.A.
16. ,, Nawab Gulam Ahmad Kalami.
17. The Rev. Father Tabard, M.A.
18. Mr. B. Nagappa, Bar.-at-Law.
19. ,, K. Sankara Narayana Rao, M.A., B.L.
20. Mr. S. Hiriyannaiya, M.A., B.L.
21. ,, B. Dasappa, B.A.
22. ,, D. Venkataramayya, B.A., L.T.

Before proceeding with the business on the agenda, the Vice-Chancellor made a touching reference to the untimely death of Mr. M. Basava Iya who, he said, was a useful member of the Senate which missed his presence. He was sorry that the Senate should have been deprived of his services.

The following questions were then answered by the Vice-Chancellor:—

Questions.—By Mr. M. T. Naraniengar.

(1) The last annual report (to the Senate) of the Audit Board, dated 3rd October 1919, contained the following suggestions:—

(i) That a Science Section of the University Library should be organised.

(ii) That a greater number of 'Poverty Scholarships' should be instituted.

Will the Vice-Chancellor be pleased to say what action has been taken in the matter?

Answer.—(i) The grant for the Central College, Bangalore, is much larger than the Maharaja's College and at present there is a larger demand for books of the 'Arts' section

in the Mysore University Library than for Science. It is intended to provide adequately for this department in the University. After a year or two more, steps will be taken to organise a science section also.

(ii) It is not likely that Government will be willing to provide more money for scholarships for some time to come. A revised scheme is under consideration under which by readjustment, a larger number of scholarships may be given to poor deserving students.

(2) There are in the constituent Colleges of the University, *Pandits*, *Munshis* and *Moulvis* with pay ranging from Rs. 20 to 150.

It is not desirable to fix a *minimum* pay (of 50 or so) in the case of University Colleges, and have three grades: (i) Rs. 100 to 150, (ii) Rs. 75 to 100, (iii) Rs. 50 to 75?

Answer.—There are two grades of Pandits and Moulvis at present and the lowest pay is Rs. 40. In some cases, smaller sums are given as allowances to those who do part time work in the Colleges. The suggestion about recommendation will be duly considered, though the time is hardly propitious.

(3) What is the object of the *Poor Boys' Section* of the Library in the Maharaja's College, Mysore? If it is purely *philanthropic* cannot similar sections be formed at Bangalore?

Answer.—The object is to help poor students to get access to text books to read in the College, when they are unable to purchase them all themselves. The question of creating similar facilities in Bangalore will be referred to the Principal for such action as may be considered desirable.

1. Election of two non-official members of the Senate to the Representative Assembly of 1920-21, by non-official members of the Senate.

Messrs. M. Venkatakrishnayya and S. Venkatesiah were declared duly elected to represent the University in the Representative Assembly for the official year 1920-21.

2. *Propositions*:—That the following schemes of endowments accepted by the University Council since March 1919 be approved *vide* Ordinance 4 (*e*).

Serial No.	Name of Donor	Amount	Conditions of endowment
		Rs.	
1	Rao Sahib Mr. M. Rama Rao, Special Forest Officer in Mysore.	5,500	(Please see page 219 of Calendar.)
2	Messrs. K. Mylar Rao, B.A., B.L., C. Srikantaiya, B.A., Assistant Prof., Central College.	1,300	A prize called the "Tangamma Prize" (in the form of books or instruments) to be awarded once a year (*vide* page 219 of Calendar.)
3	The Bangalore Central Co-operative Bank, Ltd. (The D. Appu Rao's Scholarship Fund.)	4,500	The amount to be invested in that Bank as a fixed Deposit for the first five years at 6 per cent in the name of the University of Mysore, subject to renewal or otherwise at the end of that period. Out of the interest accruing on the endowment, 3 scholarships named the D. Appu Rao's Scholarships of Rs. 90 a year to be awarded—one in each of the three Commerce classes of the Maharaja's College to the best among the poor students who are not awarded any other scholarships. In the event of there being no such student in any one year, the amount to be awarded to such other student of any of these classes as may be recommended by the Principal.

Moved by Mr. V. Subramanya Iyer and seconded by Mr. Karpur Srinivasrav.—*Passed* unanimously.

3. That the word "or" in the second line of Ordinance 55 be omitted and a comma inserted in its place and that "B. Com., or B. E.," be added after "B.Sc."

Moved by Mr. K. T. Shah and seconded by Mr. M. T. Naraniengar.—*Passed* unanimously.

4. That Ordinance 81 be omitted.

Moved by Mr. K. T. Shaw and seconded by Mr. M. C. Rangiengar.—*Passed* unanimously.

5. That the following be added under Ordinance 79:—

"The names of the candidates who pass in the 1st class shall be ranked in order of merit and the names of the candidates who pass in the second or the third class shall be published in alphabetical order."

Moved by Mr. V. Subramanya Iyer and seconded by Mr. B. Venkatanaranappa.—*Passed* unanimously.

6. That Ordinance 82 be omitted.

Moved by Mr. K. T. Shaw and seconded by Mr. N. S. Subba Rao.—*Passed* unanimously.

7. That Ordinance 83 be omitted.

Moved by Mr. K. T. Shaw and seconded by Mr. N. S. Subba Rao.—*Passed* unanimously.

8. That Ordinance 87 be omitted.

Moved by Mr. K. T. Shaw and seconded by Mr. N. S. Subba Rao.—*Passed* unanimously.

9. That in Ordinance 93 the words "in a recognised College" in the third line be omitted.

Moved by Mr. K. R. Seshachar and seconded by Mr. V. Rangaswamy Iyengar.—*Passed* unanimously.

10. (*a*) That in Ordinance No. 95 the words "(*b*) First Year Examination" be altered to "(*b*) First Year Certificate Examination" and that the same alteration be made in the scheme of Examination (p. 163 of the Calendar).

Moved by Mr. J. C. Rollo and seconded by Mr. E. G. McAlpine.—*Passed* unanimously.

(*b*) That the alteration have effect as regards the examinations of this year.—Withdrawn.

11. (*a*) That Ordinance No. 23 be amended as follows:—Insert, between "departments" and "to advise" the words "to recommend the appointment of examiners in the subjects which come within their purview, and"

Moved by Mr. F. L. Usher and seconded by Mr. N. S. Subba Rao.—*Passed* unanimously.

The following proposition by Mr. M. G. Srinivasa Rao was therefore dropped:—

That the following be added to Ordinance 23 after the word "departments."

"to recommend examiners every year for the subject represented by them."

(*b*) That Ordinance No. 17 be amended as follows Delete "(vi) to make recommendations as to the appointment of examiners."

Moved by Mr. F. L. Usher and seconded by Mr. R. Narasimhachar.

Mr. M. T. Naraniengar opposed the motion on the ground that the Faculty was a larger body than the Board of studies and that as such the power to recommend the appointment examiners should not be taken away from it.

Votes were then taken. 20 were for and 3 against.—*Passed.*

12. (*a*) That the enclosed revised syllabuses and schemes of examinations for the examination in Bachelor of Engineering in the Civil and Mechanical branches as drawn up by the Board of Studies be approved.

(*b*) That the revised syllabuses be brought into force for the students who may appear for the examinations in March 1921.

Moved by Mr. K. R. Seshachar and seconded by Mr. V. Rangaswamy Iyengar.—*Passed* unanimously.

13. That in the opinion of the Senate the creation of the Medical Faculty in connection with the Mysore University has become more urgent than ever and the Government be requested to start it from the next accademical year.

In moving the proposition, which was seconded by Mr. C. S. Doraswamy Iyer, Dr. H. B. Mylvaganam said that the subject had been repeatedly moved since the University was started and urged that the importance of, and the immediate necessity for, the Faculty might be brought to the notice of Government.

The Vice-Chancellor informed the members that the Government had again asked the University to submit for their orders the proposal of starting the Faculty in the near future in view of the difficulties now experienced by Mysore students to get admission into the Medical Colleges in British India.—*Passed* unanimously.

The following two propositions by Mr. C. R. Reddy were permitted to be withdrawn as requested by him previously:—

(*a*) That the Entrance and the Bachelors' Degree Examinations be held ordinarily in the beginning of April of each year and the results declared before the 15th June. There shall also be a supplementary examination in July at which those candidates only may present themselves who have obtained the permission of the Vice-Chancellor.

(*b*) That candidates who have obtained permission to present themselves at the Supplementary Examination be excused such part of that examination as the Vice-Chancellor, on the report of the examiners, may determine.

14. That the Budget of the University for 1920-21, as proposed by the Council, be approved.

Mr. Subba Rao in moving the adoption of the budget said that, owing to financial needs, expenditure had been reduced to the bare minimum necessary to carry on the existing activities of the University. He drew attention to the fact that, in the last two years, it had been possible to be content with a Government grant of 7 lakhs per annum; because of the large opening balances. These balances were available because the work of construction had not proceeded as rapidly as had been expected. In the coming year, it was certain that the balance would be worked off in completing the buildings under construction so that if the recurring expenditure of 10 lakhs was to be met, the Government grant must needs be increased; and the expenditure was bound to exceed 10 lakhs considerably if new developments were contemplated. He grouped the various items of expenditure in the present budget under the heads of Construction, Direction, General University activities, Libraries, and Colleges (Humanities and Sciences), and argued that the expenditure under none of these heads admitted of reduction. In particular as regards the 2 lakhs proposed for construction in the coming year, it was certain that at least a similar sum would have to be provided for some years to come for Examination halls, and buildings for the new departments specially Medicine the institution of which was under consideration.

Dr. Radhakumud Mookerji seconded.

Dr. H. B. Mylvaganam proposed that the Senate should go into committee to discuss the budget item by item. Mr. C. S. Balasundaram Iyer seconded.

Nine voted for and 11 against.—*Lost.*

Dr. Mylvaganam criticised the budget as imperfect in that it contained no information as to how the money under the various heads was expended during the last financial year. The Senate was entitled to know all the details. The way in which the proceedings were being reported at present was unsatisfactory. He then moved that a provision of Rs. 500 be made for a qualified short-hand reporter.

Mr. M. C. Rangiengar seconded. 13 voted for and 7 against.—*Passed.*

The Vice-Chancellor having pointed out that no amendment could be allowed without notice and without the special approval of the house, Dr. Mylvaganam merely criticised the budget and said that the *University Magazine* was a financial loss to the University. The cost of printing was Rs. 3,000 annually, but the sale proceeds therefrom amounted to only Rs. 500. Either its efficiency and sale should be increased or its publication should cease. He thought the number of Sanskrit Teachers was too many and should be reduced, only the Professor and Assistant Professor being retained. He also observed that no provision had been made for teaching German.

Mr. M. T. Naraniengar pointed out that in the Mathematics Department of the Central College there were now two Assistant Professors and not one as was shown in the budget.

Mr. C. S. Balasundaram Iyer referring to Section 18 of the University Regulation remarked that the accounts of receipts and expenditure for the year 1918-19 as required therein had not been circulated with the budget and that the Senate did not know what exactly was the situation. Referring to the provision under physical culture, he said that the facilities afforded to students at the Central College were insufficient, that the scheme was not properly organised and that some improvement in the way of suitable play-grounds, etc., was necessary. He further pointed that the charges for printing provided in the budget was quite inadequate in view of a large number of books, etc., of the Oriental Library published every year.

Mr. Metcalfe said with reference to Mr. Balasundaram Iyer's remarks regarding the physical culture scheme that the committee had met very regularly, that his statement that

the committee was not active was unwarranted. He however associated himself with Mr. Balasundaram Iyer about the immediate need for suitable play-ground for College students.

Mr. V. Rangaswamy Iyengar asked for permission to move an amendment that provision be made for teaching Electrical Engineering from next July in the College of Engineering.

Fourteen voted for and 5 against; the amendment was *allowed*.

Mr. Rangaswamy Iyengar moved the amendment which was seconded by Mr. K. R. Seshachar.

Twelve were for and 7 against. *Passed*.

Mr. Rangaswamy Iyengar then asked for leave of the Senate to move an amendment that the pay of the Drawing Instructor in the Engineering College be raised from Rs. 150 to 250 and that the designation changed to Assistant Professor of Drawing. Permission to move the amendment was given.

The amendment was put to the vote and *lost*.

He then with the permission of the President moved another amendment that the pay of Lecturer in Political Economy be raised from Rs. 30 to 100.

The Vice-Chancellor explained that the recommendation made by the Council for an increase of the allowance to that Lecturer was disallowed by Government.

The amendment was put to the vote and *lost*.

Dr. Mylvaganam then requested permission to move the following amendments:—

(1) That the publication of the *University Magazine* be discontinued as it has been a financial failure.

Not granted, all except one being against.

(2) That the teaching staff of Sanskrit Section be reduced to a Professor and Assistant Professor only.

Permission *not* granted, only 3 being in favour and the rest against.

(3) That a Professor of Kannada be appointed at once.

Eleven were for and 7 against; *allowed* to move.

He then moved that a Professor of Kannada be appointed in place of Assistant Professor. Mr. R. Ranga Rao seconded.

Eight voted for and 10 against.—*Lost*.

(4) That a Lecturer in German be appointed to teach German.

Disallowed, 4 being in favour and 10 against.

(5) That the posts of Assistant Professor and Lecturer in Accountancy be abolished.

Permission was *not* given, all being against.

(6) That lump addition of Rs. 8,200 for Maharaja's College be reduced to Rs. 4,000.

Disallowed, none being in favour.

At this stage Mr. J. C. Rollo moved "that the Budget be now put to the vote."

Mr. C. Srikantesvara Aiyar seconded.

Twenty were for and 6 against.

The budget with the amendments passed was then put to the vote.

Twenty-four voted for and 3 against.—*Passed*.

15. That the report of the Select Committee of the Senate containing their recommendations regarding the conversion of the present B. A. Degree course in Science into the B.Sc. Degree Course and the institution of a B.Sc. (Hons.) Course be adopted.

Moved by Mr. C. S. Balasundaram Iyer and seconded by Mr. C. Srikantesvara Aiyar.

Mr. F. L. Usher proposed that the resolutions passed by the Select Committee might be taken up one by one and considered.

(1) That it is essential that, so far as the Pass Courses are concerned, there should be a parallelism in regard to duration of courses as between the Science and Arts Faculties.

Moved by Mr. C. S. Balasundaram Iyer and seconded by Mr. C. Srikantesvara Aiyar.—*Passed* unanimously.

(2) In the Science Faculty the Honours course be organised as a concurrent course of a three years' duration commencing after the first year's course.

Moved by Mr. C. S. Balasundaram Iyer and seconded by Mr. C. Srikantesvara Aiyar.—*Passed* unanimously.

(3) That the first year course remain as it is now with English and Second language common to all branches of study.

Moved by Mr. C. S. Balasundaram Iyer and seconded by Mr. C. Srikantesvara Aiyar.—*Passed* unanimously.

(4) That after the first year course the further courses be arranged thus—

(*a*) A Pass B.A. and a Pass B.Sc.—a two years course—with English and Second language portions common to both faculties.

Moved by Mr. C. S. Balasundaram Iyer and seconded by Mr. M. Shama Rao.—*Passed* unanimously.

(*b*) That along with the Pass course there be organised Honours courses comprising a three-year course in the Art and Science Faculties.

Moved by Mr. C. S. Balasundaram Iyer and seconded by Mr. C. Srikantesvara Aiyar.

Mr. F. L. Usher in opposing the motion repeated the arguments he had advanced at the previous meeting of the Senate against the introduction of a concurrent Honours course especially in a Science College.

Mr. K. Chandy supporting Mr. Usher said that it would be a serious drawback if too much specialisation were insisted on at the earlier stage and the proposed system would be wrong.

Mr. K. Matthan considered that early specialisation in the High School stage was unnecessary and that the scheme proposed was for later specialisation and therefore supported Mr. Balasundaram Iyer.

Mr. Balasundaram Iyer replied to the objections saying that by a suitable readjustment, etc., the difficulties pointed out might be overcome and exhorted the members to accept the resolution.

Votes were then taken, 27 were for and 6 against.—*Passed.*

(5) That those who have taken the ordinary degree in either Faculty be permitted to go up for the Honours Degree in the same Faculty after a further two year-course and that graduates in science be also permitted to take similarly the Honours courses in the Arts side.

Proposed by Mr. C. S. Balasundaram Iyer and seconded by Mr. C. Srikantesvara Aiyar.—*Passed* unanimously.

(6) That graduates who have taken the Honours Degree in either Faculty be permitted to appear for the Master's Degree after a further study of at least two years, provided that exemption may be granted on the recommendation of the Professors concerned of not more than a year's study in cases where the work of the candidates specially warrants such exemptions.

Moved by Mr. C. S. Balasundaram Iyer and seconded by Mr. C. Srikantesvara Aiyar.

Mr. Metcalfe opposed the proposition and asked for permission to move the following amendment which was granted.

"That at the end of the proposition the following clause be added,—'and provided also that in the Science Faculty such exemptions be given only to candidates who had taken the post-graduate Honours course'."

Mr. Metcalfe then moved the amendment and Mr. Usher seconded it.

Mr. M. T. Naraniengar opposed the amendment and proposed that that portion of the proposition relating to exemption might be omitted.

Mr. M. C. Rangiengar thought that there should be no differentiation and opposed the amendment.

Mr. C. Srikantesvara Aiyar considered that the exemption proposed would be in very exceptional cases.

Mr. Metcalfe's amendment was then put to the vote. Nine voted for and 16 against.—*Lost.*

With the permission of the house Mr. J. C. Rollo moved the following amendment which was seconded by Mr. M. C. Rangiengar:—

"That the words 'provided . . . . . exemptions' in the proposition be deleted."

Mr. M. T. Naraniengar and Mr. H. J. Bhabha spoke against the amendment. Dr. Radhakumud Mookerji considered that the proposal would lengthen the course unnecessarily and place the Mysore graduates at a disadvantage. He therefore said he would object to the amendment of Mr. Rollo.

Votes were taken on the amendment. Fourteen votes were recorded for and 18 against.—*Lost.*

The original proposition was then put to the vote. Twenty were for and 9 against.—*Passed.*

(7) That the Master's Degree be awarded either on the basis of Thesis or of Examination or both according to the manner in which the details may be settled by the Boards of Studies concerned and approved by the Senate.

Moved by Mr. C. S. Balasundaram Iyer and seconded by Mr. C. Srikantesvara Aiyar. Twenty-one voted for and none against.—*Passed* unanimously.

16. That propositions 29 and 30 on the Agenda be remitted to the Board of Studies in Mathematics and Natural Science for their views in the matter.

Mr. M. T. Narainengar moved and Mr. Karpur Shrinivasrav seconded the proposition.

Mr. F. L. Usher opposed the proposition on the ground that the courses recommended had been in print for several months, that the Boards of Studies ought to have considered them as they had an opportunity to do so.

Eleven were for and 10 against.—*Carried.*

The consideration of the following propositions Nos. 29 and 30 was accordingly postponed:—

Proposition 29. That the following be the courses of study in subsidiary subjects at which the attendance of the B.Sc., candidates taking Physics or Chemistry as principal subjects is required under Ordinance No. 65 III (*b*).

A. PHYSICS (MAIN)—

Mathematics.—A course of four lectures a week during the 2nd year and lecture a week during the 3rd year accoding to the syllabus appended and including the lectures on Dynamics and Statics given in the B.A. Mathematics course.

Chemistry.—A course of two lectures a week during the 2nd year and one lecture a week during the 3rd year, comprising Physical Chemistry as for B.Sc., Chemistry (Main) and properties of Metals and Alloys. Also a course of practical instruction in Qualitative and Volumetric Analysis for three hours a week during the third year.

B. CHEMISTRY (MAIN)—

Mathematics.—A course of from 12 to 20 lectures during the 2nd year according to the syllabus appended.

Physics.—The present B.A. course, omitting Properties of Matter, Sound and Geometrical Optics.

SYLLABUS OF MATHEMATICS FOR PHYSICS (MAIN) CANDIDATES.

(1) Imaginary and complex numbers, exponential theorem, logarithmic series.

(2) Elements of analytical geometry, the straight line, the circle, the parabola, the ellipse and the hyperbola, graphs of important functions.

(3) Differentiation, general rules for differentiating, standard forms, the fluxional notation, equation of the tangent to a curve at a point, higher derivatives, Leibnitz' theorem, maxima and minima, points of inflection.

(4) Partial differentiation, elements of co-ordinate geometry of three dimensions, direction cosines, equations of line and plane, equation of surface, total derivative, complete differentials, partial derivatives of higher order, change of variable.

(5) Integration, standard forms, change of variable, integration by parts, successive reduction, partial fractions, important definite integrals, the planimeter, double integrals.

(6) Curvature, radius of curvature, formulæ for curvature, envelopes, equation of envelope, evolute and involute.

(7) Expansions of series, Taylor's theorem, Maclaurin's theorem, remainder in Taylor's theorem, Fourier's series.

(8) Applications of calculus to the theory of equations, Newton's method of approximating to the roots of an equation, the method of successive approximations, expansion of a root in series, the equation $x = \tan x$, proportional parts, small corrections.

(9) Differential equations, the ordinary types of Differential equations met in the study of physical problems.

The subject is to be taught with the special object of enabling the student to use with confidence the principles learnt, in the study of physical problems. The course is to be illustrated throughout with examples from Physical Science.

SYLLABUS OF MATHEMATICS FOR CHEMISTRY (MAIN) CANDIDATES.

(1) Imaginary and complex numbers, exponential theorem, logarithmic series.

(2) Elements of analytical geometry, the straight line, the circle, the parabola, the ellipse—

(3) Differentiation, general rules for differentiating, standard forms, the fluxional notation, equation of the tangent to a curve at a point, higher derivatives, maxima and minima, points of inflection.

(4) Partial differentiation, total derivative, complete differentials, partial derivative, partial derivatives of higher order, change of variable.

(5) Integration, standard forms, change of variable, integration by parts, important definite integrals.

Proposition 30. That the following be the scheme of examinations in subsidiary subjects for B.Sc. candidates taking Physics or Chemistry as principal subjects:—

A.—PHYSICS (MAIN)—

(i) The B.A. paper in Dynamics.

(ii) A special paper in Mathematics.

(iii) The B.Sc. (Main) paper in Physical Chemistry.

(iv) A selected portion of the B.A. examination in Practical Chemistry.

B.—CHEMISTRY (MAIN)—

(i) The B.A. paper in Heat and Light.

(ii) The B.A. paper in Electricity and Magnetism.

(iii) A selected portion of the special paper in Mathematics set for Physics (Main) candidates.

(iv) The B.A. examination in Practical Physics, in so far as it pertains to the subjects of the lectures prescribed.

17. (*a*) That the following be added as 65 A under Ordinance 65:—

"Any candidate who has passed the B.Sc. Examination may be admitted to the examination in a principal subject other than the one he has already offered for the examination, provided he has not taken the B.Sc. degree and has attended a regular course of lectures for two years on the said subject. If he is successful in the examination, he will be certified to have taken the B.Sc. degree in that subject also."

Moved by Mr. E. P. Metcalfe and seconded by Mr. E. G. McAlpine.—*Passed* unanimously.

(*b*) That in the last sentence of Ordinance 102, the words "or B.Sc." be inserted after "B.A."

Moved by Mr. E. P. Metcalfe and seconded by Mr. E. G. McAlpine.—*Passed* unanimously.

18. That Ordinance 79 be amended so as to include the following:—

"The minimum for a pass in the Science Subjects shall be 35 per cent in each division."

The divisions shall be—

(i) in the case of Mathematics as the principal subject:—

a. Pure Mathematics, *b*. Applied Mathematics, *c*. Subsidiary subject.

(ii) and, that similar divisions be prescribed in other subjects.

Moved by Mr. M. T. Narayangar and seconded by Mr. Karpur Shrinivasrav.

Mr. E. P. Metcalfe moved, with the permission of the Senate, an amendment that this proposition be referred to other Boards of Studies concerned. Mr. F. L. Usher seconded.

Thirteen voted for and 8 against the amendment.—*Passed.*

19. That in the B.Sc. Degree Examination there be three papers of three hours each (100 marks) instead of two as at present, in the practical examination in Geology (main subject).

Moved by Mr. V. S. Sambasiva Iyer and seconded by Mr. C. Srikantesvara Aiyar.

Thirteen voted for and none against—*Passed.*

20. That the scheme for Zoology (main) and Botany (main) be the same as for Geology (main) and that the existing scheme (*vide* page 166 of the Calendar) be altered accordingly.

Moved by Mr. V. S. Sambasiva Iyer and seconded by Mr. C. Srikantesvara Aiyar.

Fifteen voted for and none against.—*Passed.*

21. That the following be added to Ordinance 55 as a proviso thereunder:—

"Provided that with the permission of the Vice-Chancellor, any student who has passed the Intermediate Examination of any Indian University may be admitted, at the discretion of the Principal, to the Second Year Class for the degree of B.A. or B.Sc."

Moved by Mr. M. C. Rangiengar and seconded by Mr. M. Ramachandra Rao.

Mr. C. S. Balasundaram Iyer opposed and said that there was no need for a permanent rule of the kind and that thereby the course of study in the University would be reduced to two years instead of three.

Mr. M. T. Naraniengar took objection to admitting such men into the second year B.Sc. class.

Mr. E. P. Metcalfe supported the proposition.

The Vice-Chancellor informed the members that the University corresponded with the other Indian Universities on the subject of the recognition of the Intermediate Examination of their Universities by this University, that except the Bombay and Madras Universities, the others had no objection to the suggestion and that therefore the rule was proposed. He also added that as there would not be any influx of outside students seeking admission, the ordinance might safely be relaxed. This would be a step to securing greater reciprocity in the recognition of all examinations and courses of other Universities corresponding to those of the State University.

Votes were then taken, 24 were for and 4 against—*Passed.*

22. That, as the second language is one of the principal subjects for the Mysore B.A. Examination, and as the clubbing of the second language and English is likely to impair the study of either, the two be separated and treated as independent subjects and that the B.A. Examination be held in three Compartments—English, Second Language and Optionals.

Moved by Mr. S. R. Balakrishna Rao and seconded by Mr. M. Ramachandra Rao. With the permission of the seconder, Mr. S. R. Balakrishna Rao, withdrew the motion in favour of the following proposition by Mr. E. G. McAlpine.

23. That Ordinance 76 (page 42 of the Calendar for 1919-20) be amended to read as follows :—

(1) The B.A. Examination shall be held in three parts—

Part I to consist of English Language
Part II to consist of Second Language

Those candidates who obtain not less than 40 per cent of the total marks in Part I and in Part II shall be declared to have passed in those parts respectively.

Part III to consist of two divisions—

(*a*) One optional subject.
(*b*) A second optional subject.

Provided that candidates for the B.A. Examination present themselves for the Examination in all the three parts when appearing for the first time.

(2) Those candidates who obtain not less than 40 per cent of the total number of marks in Part III shall be declared to have passed in that part, provided they obtain not less than 35 per cent in each division of that part.

(3) Candidates who have failed to pass in Part III, shall be exempt from submitting themselves to the examination in the division in which they have obtained not less than 60 per cent of marks in any examination for the B.A. Degree held within two years previous to the date of the examination.

Provided—when, as the result of such exemption, a candidate appears only in one division of Part III the minimum pass marks for that division shall be 40 per cent.

In moving the proposition Mr. E. G. McAlpine said that under the proposed rule there would be totally separate classification in English and in Second Language and that it was necessary that there should be three parts in the Degree Examination instead of two as at present. He also added that in respect of culture also there should be separate parts for English and Second Language.

Dr. Radhakumud Mookerji seconded.—*Passed* unanimously.

Mr. Rollo then moved that the following propositions be permitted to be withdrawn :—

(1) (*a*) That Ordinance 76 (2) be altered to read :—

"Those candidates who obtain not less than 40 per cent in each division of Part I shall be declared to have passed in Part I."

(*b*) That this be followed by a paragraph entitled 76 (3) which shall consist of the present 76 (2), except that the words "either part" shall be altered into "Part II."

(*c*) That the present 76 (3) be re-numbered 76 (4), and the words "a part" be altered into "Part II."

(2) That Ordinance 78 be amended to read as follows :—

In the B.A. Examination there shall be separate lists for Part I (*a*), Part I (*b*), and Part II. The names of candidates who pass in the two divisions of any part at

the same time and obtain at least 60 per cent of the total marks in Part I (*a*), or Part I (*b*), or Part II, respectively, shall be ranked in order of merit in the first class; and the names of candidates who obtain at least 50 per cent but less than 60 per cent of such total marks shall be arranged in alphabetical order in the second class.

(3) That the above provision be applied retrospectively.

These were permitted to be withdrawn.

24. (1) That in Ordinance 76 (1) the words "(*a*) English Language" be altered into "(*a*) English Language and Literature."

(2) That in Ordinance 76 (1) the words "(*b*) Second Language" be altered into "(*b*) Second Language and Literature."

Moved by Mr. J. C. Rollo, and seconded by Mr. E. G. McAlpine.—*Passed* unanimously.

25. (*a*) That optional Kannada be included in Ordinance 57 III (*b*) by omitting the full-stop after "Elementary Economics" and adding the words "or Kannada."

Moved by Mr. M. Shama Rao, and seconded by Mr. B. M. Srikantia.—*Passed* unanimously.

(*b*) That when a student selects Kannada as one of his optional subjects he shall be required to select for his second language a language other than Kannada and that Ordinance 57 II be modified accordingly.

Moved by Mr. M. Shama Rao, and seconded by Mr. B. M. Srikantia.—*Passed.*

26. That on page 123 of the Calendar (Ordinance 68. *f*.) for No. 5 which reads "The examination shall consist of written tests only" there be substituted "The examination shall consist of written and a *viva voce* tests."

Moved by Mr. E. G. McAlpine, and seconded by Dr. Radhakumud Mookerji.—*Passed* unanimously.

27. That the following be added as a separate paragraph at the foot of page 124 of the Calendar:—"The *viva voce* examination shall carry no marks. Its purpose shall be to help the examiners to assign candidates to their proper classes. In no case can a candidate as a result of the *viva voce* be placed in a lower class than that to which he is entitled on his written papers.

Moved by Mr. E. G. McAlpine, and seconded by Mr. A. R. Wadia.

Mr. K. Chandy proposed that the first sentence of the proposition be omitted and the second sentence be modified as follows:—

"The purpose of the *viva voce* examination shall be only to help the examiners to assign candidates to their proper classes."

Mr. K. Chandy also suggested that "shall" be substituted for "can" in the third sentence of the proposition. The mover accepted the changes proposed.

Passed unanimously.

28. That the following scheme of classes, maxima of marks, etc., for the M.A. Degree Examination in Philosophy as recommended by the Board of Studies be approved:—

(*a*) The degree to be given in three classes.

(*b*) The minimum percentages of marks required to be—

First class	60 per cent.
Second class	50 per cent.
Third class	40 per cent.

(*c*) The maximum number of marks for each paper to be 100.

(*d*) That each paper be of three hours' duration.

Mr. A. R. Wadia moved the proposition with the addition that the following be included in the Scheme as item (*e*):—

"That the minimum required in each of the two optional groups be 30 per cent and that the minimum in the two compulsory papers combined, *viz.*, History of Philosophy and Essay also be 30 per cent."

Mr. N. S. Subba Rao seconded.—*Passed* unanimously.

The meeting was then adjourned to 8 A.M. the next day.

H. V. NANJUNDAYYA,
Vice-Chancellor and Chairman.